

## INTERNATIONAL SEARCH REPORT

International Application No PCT/EP2005/050235
---

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C08F110/00 C08F4/642 C08F10/00
---

According to International Patent Classification (IPC) or to both national classification and IPC
---

B. FIELDS SEARCHED
--------------------

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C08F
---

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
---

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)
--

EPO-Internal, CHEM ABS Data
-----------------------------

C. DOCUMENTS CONSIDERED TO BE RELEVANT
--

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 548 442 B1 (WITTNER CHRISTOPHER E ET AL) 15 April 2003 (2003-04-15)  column 16, line 39 - line 57 column 19, line 36 - column 20, line 29; examples 3a-c table 1 ----- US 6 239 059 B1 (SAUDEMONT THIERRY ET AL) 29 May 2001 (2001-05-29) column 9 - column 18; example 3 example 25; table 5 ----- US 3 718 636 A (STEVENS J ET AL) 27 February 1973 (1973-02-27) example 10 -----	1-3, 9-12, 20-23
X		1-23
A		1-23

<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.
--

<input checked="" type="checkbox"/> Patent family members are listed in annex.
--

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search
---

13 May 2005
-------------

Date of mailing of the International search report
--

06 OCT 2005
-------------

Name and mailing address of the ISA
-------------------------------------

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016
---

Authorized officer
--------------------

Parry, J
----------

**INTERNATIONAL SEARCH REPORT**International Application No  
PCT/EP2005/050235**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 00/04058 A (UNIVATION TECH LLC) 27 January 2000 (2000-01-27) example 5 -----	1-23

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2005/050235

### Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the proscribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1 - 11

Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

The subject matter of claims 1-11.

---

2. claim: 12

The subject matter of claim 12.

---

3. claims: 13-21 and 23

The subject matter of claims 13-21 and 23.

---

4. claim: 22

The subject matter of claim 22.

---

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No	
PCT/EP2005/050235	

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6548442	B1	15-04-2003	AU 770747 B2 AU 4514101 A CA 2394693 A1 CN 1414880 A EP 1250190 A1 HU 0203595 A2 NO 20022631 A WO 0141920 A1 US 2003171511 A1	04-03-2004 18-06-2001 14-06-2001 30-04-2003 23-10-2002 28-01-2003 10-07-2002 14-06-2001 11-09-2003
US 6239059	B1	29-05-2001	AT 240353 T CA 2246003 A1 CN 1214342 A DE 69814554 D1 DE 69814554 T2 EP 0906920 A1 ES 2200286 T3 FR 2769245 A1 JP 11171911 A NO 984568 A	15-05-2003 02-04-1999 21-04-1999 18-06-2003 08-04-2004 07-04-1999 01-03-2004 09-04-1999 29-06-1999 06-04-1999
US 3718636	A	27-02-1973	AT 305617 B CA 943525 A1 CH 508416 A DE 2000834 A1 DK 125599 B ES 374898 A1 FI 51706 B FR 2029332 A5 GB 1256851 A NL 136668 C NL 7000575 A NO 134802 B RO 76709 A1 SE 380029 B SU 438187 A3	12-03-1973 12-03-1974 15-06-1971 10-09-1970 12-03-1973 16-02-1972 30-11-1976 16-10-1970 15-12-1971 28-07-1970 06-09-1976 24-03-1982 27-10-1975 30-07-1974
WO 0004058	A	27-01-2000	AU 743367 B2 AU 5095499 A BR 9912124 A CA 2330775 A1 EP 1097175 A1 JP 2002520452 T	24-01-2002 07-02-2000 25-09-2001 27-01-2000 09-05-2001 09-07-2002

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number  
**WO 2005/075525 A3**

(51) International Patent Classification<sup>7</sup>: C08F 110/00, 4/642, 10/00

(21) International Application Number:  
PCT/EP2005/050235

(22) International Filing Date: 20 January 2005 (20.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
04290263.5 30 January 2004 (30.01.2004) EP  
04290696.6 12 March 2004 (12.03.2004) EP

(71) Applicants (for all designated States except US): TOTAL PETROCHEMICALS RESEARCH FELUY [BE/BE]; Zone Industrielle C, B-7181 Seneffe (Feluy) (BE). Centre National de la Recherche Scientifique [FR/FR]; 3, Rue Michel Ange, F-75016 Paris (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PRADES, Floran [FR/FR]; 62 Rue Tête d'or, F-69006 Lyon (FR). BOISSON, Christophe [FR/FR]; 155 Rue Léon Blum, F-69100 Villeurbanne (FR). SPITZ, Roger [FR/FR]; 30 Rue Jean Broquin, F-69006 Lyon (FR). RAZAVI, Abbas [IR/BE]; 35, Domaine de la Brisée, B-7000 Mons (BE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
1 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/075525 A3

(54) Title: ACTIVATING SUPPORTS FOR METALLOCENE CATALYSIS.

(57) Abstract: The present invention relates to a process for preparing an activating support for metallocene complexes in the polymerisation of olefins comprising the steps of: I) providing a support prepared consisting in particles formed from at least one porous mineral oxide; II) optionally fixing the rate of silanols on the surface of the support; III) functionalising the support with a solution containing a fluorinated functionalising agent; IV) heating the functionalised and fluorinated support of step c) under an inert gas and then under oxygen; V) retrieving an active fluorinated support. That activating support is used to activate a metallocene catalyst component for the polymerisation of olefins.

BEST AVAILABLE COPY